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Nota di contenuto	Introduction -- Propagation and Radiation of Accelerated Particles In Super-Nova Remnants With Clumpy Structures -- Particle Escape From Supernova Remnants -- The Galactic Center Region -- Sensitivity studies for Gamma-Ray and Neutrino Telescopes -- Summary and Conclusions -- Appendix.
Sommario/riassunto	This book addresses three “hot” topics concerning the general problem of the origin of Galactic cosmic rays, namely (1) the acceleration, propagation, and radiation of particles in supernova remnants; (2) very high energy neutrinos from the Galactic Center; and (3) the potential held by the next-generation gamma-ray and neutrino detectors CTA and KM3NeT for studying extended non-thermal sources in the Galaxy. The topics are intrinsically connected to determining the nature (“hadronic or leptonic?”) of gamma-ray emissions from young and middle-aged supernova remnants and the search for cosmic-ray PeVatrons. The results and conclusions provided here are based on extensive analytical and numerical simulations, which are formulated and presented in a straightforward format that can be readily used in the interpretations of gamma-ray and neutrino observations, as well as for confident predictions for future measurements.

